

Claims

- [c1] 1.A fuse holder comprising:
a housing defining an enclosed region, said housing comprises a base and a cover, said base and said cover adapted to accept differently configured cage holders within said enclosed region;
a pair of contacts within said housing at opposite ends of said enclosed region and spaced to engage terminals on ends of a fuse; and
a first cage holder and a second cage holder configured to fit within in said housing, each cage holder of said first and said second cage holders includes either a single pole cage or a plurality of pole cages.
- [c2] 2. The fuse holder of claim 1 wherein said housing comprises a fuse carrier pivotally mounted on said housing, said fuse carrier is movable between a closed position, in which said pair of contacts electrically engage said terminals, and an open position, in which said fuse can be inserted into said fuse carrier.
- [c3] 3.The fuse holder of claim 1 wherein one pole cage of said plurality of pole cages is a neutral connection terminal and another pole cage of said plurality of pole cages is electrically connected to said pair of contacts.
- [c4] 4. The fuse holder of clam 1 wherein said single pole cage is electrically connected to said contacts.
- [c5] 5. The fuse holder of claim 1 wherein said single pole cage and at least one pole cage in said plurality of poles cages comprises: four generally planar sides with a flange depending generally perpendicularly from an edge forming one of said planar sides, and a screw threadably engaged with a side opposite said one of said planar sides for retaining an electrical wire entering an interior portion formed by said planar sides.
- [c6] 6. The fuse holder of claim 1 wherein said housing includes:
a pair of cavities disposed at opposing ends of said enclosed region, each cavity configured to receive said each cage holder ;
a pair of apertures, each aperture of said pair of apertures is disposed above said each cavity and configured to receive a top surface edge of said each cage

holder; and

a pair of openings, each opening of said pair of openings is disposed at said opposing ends and configured to receive a front face edge of said each cage holder.

[c7] 7. The fuse holder of claim 1 wherein said each cage holder comprises a first half section and a complementary second half section, said first half section and said complementary second half section configured to retain said single pole cage therebetween.

[c8] 8. The fuse holder of claim 1 wherein said each cage holder comprises:
a front face having a plurality of cutouts;
a rear face generally parallel to said front face having a slot generally aligned with each cutout of said plurality of cutouts; and
a dividing face disposed intermediate said front face and said rear face generally extending perpendicular therebetween, said dividing face providing a cavity having said one cutout of said plurality of cutouts on each side of said dividing face, said cavity retaining a pole cage of said plurality of pole cages aligned with said each cutout.

[c9] 9. The fuse holder of claim 1 wherein said base and said cover are configured with a defined channel to retain a neutral strap in said enclosed region.

[c10] 10. The fuse holder of claim 9 wherein said defined channel includes a first and a second neutral strap disposed therein having a biased contact conducting plate intermediate said first neutral strap and said second neutral strap, said conduct plate biased to provide an electrical connection between said first neutral strap and said second neutral strap.

[c11] 11. A fuse system for fuse protection to a distribution circuit including a first phase, a second phase, and a neutral, said fuse system including;
a first fuse holder including:
a first housing,
a single pole cage holder within said first housing, said single pole cage holder including a single pole cage for electrical connection to the first phase, and

a second fuse holder including:

a second housing identical to said first housing,

a two-pole cage holder within said second housing, said two-pole cage holder including a first pole cage for electrical connection to the second phase and a second pole cage for electrical connection to the neutral.

[c12]

12. The fuse system of claim 11 wherein each housing of said first housing and said second housing define an enclosed region, said each housing comprises a base and a cover, said base and said cover adapted to accept differently configured cage holders within said enclosed region, each fuse holder of said first fuse holder and said second fuse holder including:

a pair of contacts within said each housing at opposite ends of said enclosed region and spaced to engage terminals on ends of a fuse; and

a first cage holder and a second cage holder configured to fit within said each housing, each cage holder of said first cage holder and said second cage holder includes either said single pole cage or said a plurality of poles cages.

[c13]

13. The fuse system of claim 12 wherein said each housing comprises a fuse carrier pivotally mounted on said each housing, said fuse carrier is movable between a closed position, in which said pair of contacts electrically engage said terminals, and an open position, in which said fuse can be inserted into said fuse carrier.

[c14]

14. The fuse system of claim 11 wherein each pole cage of said single pole cage and said first and second pole cages comprises: four generally planar sides with a flange depending generally perpendicularly from an edge forming one of said planar sides, and a screw threadably engaged with a side opposite said one of said planar sides for retaining an electrical wire entering an interior portion formed by said planar sides.

[c15]

15. The fuse system of claim 12 wherein said each housing includes:

a pair of cavities disposed at opposing ends of said enclosed region, each cavity configured to receive a cage holder selected from said single pole cage holder and said two-pole cage holder;

a pair of apertures, each aperture of said pair of apertures is disposed above

said each cavity and configured to receive a top surface edge of said cage holder; and

a pair of openings, each opening of said pair of openings is disposed at said opposing ends and configured to receive a front face edge of said cage holder.

[c16] 16. The fuse system of claim 11 wherein said single pole cage holder comprises a first half section and a complementary second half section, said first half section and said complementary second half section configured to retain said single pole cage therebetween.

[c17] 17. The fuse system of claim 11 wherein said two-pole cage holder comprises:
a front face having a plurality of cutouts;
a rear face generally parallel to said front face having a slot generally aligned with each cutout of said plurality of cutouts; and
a dividing face disposed intermediate said front face and said rear face generally extending perpendicular therebetween, said dividing face providing a cavity having said each cutout of said plurality of cutouts on each side of a plane defined by said dividing face, said cavity retaining a pole cage selected from said first and said second pole cages aligned with said each cutout.

[c18] 18. The fuse system of claim 12 wherein said base and said cover are configured with a defined channel to retain a neutral strap in said enclosed region.

[c19] 19. The fuse system of claim 18 wherein said defined channel includes a first and a second neutral strap disposed therein having a biased contact conducting plate intermediate said first and said second neutral straps, said conduct plate biased to provide an electrical connection between said first and said second neutral strap.